

REMARKS

This is in response to the Office Action mailed on June 2, 2005. In the Office Action, the Examiner indicated that Claims 1-18 are pending, and Claims 1-18 are rejected. The Office Action was made Final.

Claim Rejections - 35 USC 112

The Examiner rejected Claims 1-2, 10-11 under 35 USC 112, first paragraph as not meeting the written description requirement.

35 USC 112 rejection of Claims 1 and 10

For Claims 1 and 10, the Examiner proposed that the limitations "and **tables** for verbs including expected cases of complements of verbs" and "the correct case combination as a function of the case endings and expected cases" were not disclosed in the specification.

In the present application, however, "tables for verbs including expected cases of complements of verbs" and "the correct case combination as a function of the case endings and expected cases" are explicitly disclosed.

An example of a "table for a verb including expected cases of complements of the verb" is shown at least in FIG. 4 at blocks 308, 310. FIG. 4 describes processing of a faulty German language sentence: "Der Mann nennt der Richter einen Lügner." A person of ordinary skill in the art would have recognized "nennt" as the verb in this faulty sentence. Block 308, labeled "IDENTIFYING CASE REQUIRING ELEMENT" also explicitly illustrates a table for the verb "nennt". The table shows the expected case combinations for the verb "nennt", namely "Nom, Acc, Acc" in a first row of the table or "Nom, Dat, Acc" in a second row of the table. A subsequent block 310 in FIG. 4 explicitly refers to "identifying case-carrying complements." FIG. 4 also shows

examples of case-carrying complements, i.e. "Der Mann" (Nom), "der Richter" (Nom), "einen Lügner" (Acc). A person of ordinary skill in the art would have recognized the terms "nom, dat, acc" in blocks 308, 310 as referring to nominative, dative and accusative cases and case complements for the verb "nennt".

An example of "the correct case combination as a function of the case endings and expected cases" is disclosed at least at page 15, lines 24-29: "The correctness of one grammatical case form can only be defined by the combination of all grammatical cases that are present in a sentence. Usually (unless preceded by a preposition), the verb of a sentence has certain requirements with respect to what cases are to be expected in a sentence." An example of the details of a function of case endings and expected case is set forth explicitly in steps (a) through (e) at page 15, line 29 through page 16, line 9.

Thus for claims 1, 10, the features which the Examiner proposed to be not disclosed in specification are, in fact, disclosed, and working examples of these features are shown as explained above. Reconsideration and withdrawal of the objections to Claims 1, 10 under 35 USC 112-first paragraph is therefore requested.

#### 35 USC 112 rejection of Claims 2 and 11

For Claims 2 and 11, the Examiner proposed that the limitation "displaying ... **in an order from the most likely changes of case ending to the least likely change of case endings** to be accepted by a user" were not disclosed in the specification. The application discloses at page 16, lines 8-9, step (e) to "define the preferred order in which the correction should be presented." The application also discloses at page 16, lines 30-32 that "Extra steps are taken during the calculation of the target case to present most likely scenarios to the user

before less likely scenarios." It is disclosed, of course, through the specification that the changes or corrections that are contemplated are changes to case endings. Table 10 in FIG. 1 for example shows that case endings change as a function of grammatical gender, number (singular or plural) and case :(nominative, dative, accusative). An example of a target case calculation is illustrated at 206 in FIG. 3 which illustrates various extra steps that are shown in nested loops.

Thus for claims 2, 11, the features which the Examiner proposed to be not disclosed in specification are, in fact, disclosed, and working examples of these features are shown as explained above. Reconsideration and withdrawal of the objections to Claims 2, 11 under 35 USC 112-first paragraph is therefore requested.

#### Claim Rejections - 35 USC 103

The Examiner rejected Claims 2-3 and 11-12 under 35 USC 103 over Zamora et al. US 4887212 in view of Kucera et al. US 4864502 and further in view of Anick et al. US 5559693 or Yoshida US 4595686. The Examiner rejected Claims 1, 4-10 and 13-18 under 35 USC 103 over Zamora in view of Kucera and Anick or Yoshida, and further in view of Ecker et al. US 6,442,524 B1.

With this amendment, Claims 1, 10 are amended to include limitations to "the target case function generating a combination of multiple sentence rewrites that ~~includes~~ each include a change of case endings in one noun phrase that corrects the case error combination.

None of the references cited by the Examiner, taken singly or in combination, teach or suggest "the target case function generating a combination of multiple sentence rewrites that each include a change of case endings in one noun phrase that corrects the case error combination" as presently claimed in Claims 1, 10.

In a grammar checker specific to the German language, there are multiple problems with ambiguity.


A first problem, which is shown in applicant's FIG. 1, is that German language noun phrase case ending do not unambiguously identify a case gender or number of a noun. A second problem, which is set forth in applicant's specification at page 6, lines 9-16, is that German language nouns can have ambiguous grammatical gender. A third problem, which is shown in applicant's FIG. 4 at 308, 310 is that German language verbs do not have an unambiguous requirement for case elements. A fourth problem is that German language word order does not provide an unambiguous indication of grammatical case. These multiple ambiguities combine to make a particularly difficult problem for a German language grammar checker. Applicant has resolved these multiple problems with ambiguities by providing a target case function generating a combination of multiple sentence rewrites that each include a change of case endings in one noun phrase that corrects the case error combination. The target case function provides a German language grammar checker that resolves a large number of ambiguities, and then presents multiple sentence rewrites to the user so that the user can resolve a remaining ambiguity by choosing one of the multiple rewrites that corresponds with the users intended meaning.

The Claims 2-9, 11-18 that depend from Claims 1 or 10 are believed to be patentable when taken in combination with the presently amended Claims 1, 10. The application appears to be in condition for allowance and favorable action is requested.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

WESTMAN, CHAMPLIN & KELLY, P.A.

By:   
David C. Bohn, Reg. No. 32,015  
Suite 1400 - International Centre  
900 Second Avenue South  
Minneapolis, Minnesota 55402-3319  
Phone: (612) 334-3222 Fax: (612) 339-3312